

Patent claims:

1. Process for removing halide compounds adhering to finely divided metal oxide particles by means of steam, the metal oxide particles being formed by reaction of
5 halide-containing starting materials by hydrolysis or oxidising gases, wherein

- the finely divided metal oxide particles containing residues of halide compounds are applied, together with reaction gases, to the upper part of an upright column and migrate downwards by means of gravity,
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- the steam, optionally mixed with air, is applied at the bottom end of the column,
- the finely divided metal oxide particles containing residues of halide compounds and the steam are fed
15 counter-currently, and
- the metal oxide particles freed of halide residues are removed at the base of the column,
- steam and halide residues are removed at the head of the column,

20 which process is characterised in that

- the column is heated in such a manner that the temperature difference $T_{\text{bottom}} - T_{\text{top}}$ between the lower part and the upper part of the column is at least 20°C and a maximum temperature of 500°C prevails in the
25 column, and
- the metal oxide particles have a residence time in the column of from 1 second to 30 minutes.

2. Process according to claim 1, characterised in that the temperature difference $T_{\text{bottom}} - T_{\text{top}}$ is from 20°C to
30 150°C.

3. Process according to claim 1 or 2, characterised in that the maximum temperature in the column is from 150 to 500°C.
4. Process according to claims 1 to 3, characterised in that the residence time is from 5 seconds to 5 minutes.
5. Process according to claims 1 to 4, characterised in that the metal oxide particles in the stream entering the column have a temperature of from about 100°C to 500°C.
6. Process according to claims 1 to 5, characterised in that the amount of steam that is introduced is from 0.0025 to 0.25 kg of steam per hour per kg of metal oxide particles.
7. Process according to claims 1 to 6, characterised in that the amount of air admixed with the steam is from 0.005 to 0.2 m³ of air per kg of metal oxide particles per hour.
8. Process according to claims 1 to 7, characterised in that, after the metal oxide particles have been removed at the base of the column, they are passed through at least one further column in which the maximum temperature does not exceed 500°C.
9. Process according to claim 8, characterised in that the metal oxide particles and the steam are fed co-currently or counter-currently in the further columns.
10. Process according to claim 8 or 9, characterised in that the second and subsequent columns have a temperature difference $T_{\text{bottom}} - T_{\text{top}}$ between the lower part and the upper part of the columns of at least 5°C.